Summary to the work program of the discipline

"PRACTICE IN PHARMACEUTICAL TECHNOLOGY»

the main educational program of higher education (specialty) in the specialty 33.05.01 Pharmacy

- **1. The purpose of the internship** participation in the formation of:
- general professional competencies (GPC-1 (1.1-1.4), GPC 2 (2.2), GPC 6 (6.2-6.3);
- professional competencies (PC-1 (1.1-1.4))).
- 2. The place of discipline in the structure of the OOP

2.1. Position of the academic discipline in the structure of the General Educational Program (GEP).

The practice refers to Block 2 of the PEP VO of the specialist in the specialty 33.05.01 Pharmacy, conducted on the 4th year in the 9th semester according to the schedule.

3. Requirements for the results of mastering the program of the discipline (module) for the formation of competencies

The study of the discipline is aimed at developing the following universal (UC) and/or general professional (OPK) or/and professional (PC) competencies among students:

NT			C-11			
N	Compatana	The content of the	Code and name of the indicator of As a result of studying the discipline, stude			tudents should:
	o. Competenc y Code	competence (or part	achievement of			
n P/		of it)	competence	know	be able to	process
1.	GPC - 1	GPC -1. Able to use	GPC-1.1. Applies	• technolo	• draw up basic	• in the case of
1.	GIC-I	basic biological,	the main biological	gy of dosage	technological and	use in the
		physico-chemical,	methods of analysis	forms obtained	instrumental	manufacture of
		chemical,	for the development,	under the	schemes for the	drugs that are
		mathematical	research and	conditions of	production of	
		methods for the	examination of	pharmaceutical	finished medicines	3
		development,	medicines and	1		quantitative
		research and	medicinal plant	production:	• draw up a	accounting, registration of
		examination of	materials	powders, collections,	material balance	registration of the reverse side
		medicines, the	materiais	,	and carry out	
		manufacture of	GPC-1.2. Applies	granules,	calculations taking	
		medicines	basic physico-	capsules,	into account the	prescription)
		medicines	chemical and	microgranules,	consumption rates	• basic
			chemical methods of	microcapsules,	of the entire	information
			analysis for the	dragees, tablets,	technological	transformation
			development,	aqueous	process by stages	technologies:
			research and	solutions for internal and	• draw up a	text,
			examination of		technological	spreadsheet
			medicines and	external use, solutions in	section of the	editors;
			medicinal herbal	viscous and	industrial	• technique of
			raw materials	volatile solvents,	regulation for the	working on the
			Taw Illaterials		production of	Internet for
			GPC-1.3. Applies	syrups, aromatic waters, tinctures,	finished dosage	professional
			the main methods of	extracts,	forms	activities;
			physical and	ophthalmic	• carry out step-	• skills in
			chemical analysis in	dosage forms,	by-step control at	compiling
			the manufacture of	solutions for	the stages of	technological
			medicines	injections and	manufacturing the	sections of
			medicines	infusions,	finished product	industrial
			GPC-1.4. Applies	suspensions for	and during the	regulations for
			mathematical	enteral and	holiday;	the production
			methods and		• to standardize	of finished
			performs	parenteral use, emulsions for	DF in terms of	dosage forms,
			mathematical	emuisions for enteral and	technological and	including
			processing of data		biopharmaceutical	technological
			processing or data	parenteral use,	indicators in	and

			obtained during the	ointments,	accordance with the	instrumental
			development of	suppositories,	current normative	schemes for the
			medicines, as well	patches, pencils,	documents	production of
			as research and	films, aerosols;	• make fragments	finished dosage
			examination of	 technolo 	of ND on LF	forms;
			medicines and	gy for the	• work	 develop an
			medicinal plant	manufacture of	independently with	accounting
			materials	medicines in a	educational and	policy, keep
				pharmacy:	reference literature;	records of
				powders,	• ensure	inventory
				aqueous	compliance with	items: cash and
				solutions for	the rules of	settlements,
				internal and	industrial hygiene,	prepare reports
				external use,	environmental	for internal and
				solutions in	protection, labor,	external users
				viscous and	safety	of accounting
				volatile solvents,		information
				ophthalmic		
				dosage forms,		
				solutions for		
				injections and		
				infusions,		
				suspensions for		
				entheal and		
				parenteral use,		
				emulsions,		
				aqueous extracts		
				from medicinal		
				plant raw		
				materials,		
				complex		
				combined		
				preparations with		
				a liquid		
				dispersion		
				medium,		
				ointments,		
				suppositories;		
2.	GPC -2	Able to apply	GPC-2.2. Explains	 technolo 	• draw up basic	• in the case of
		knowledge about	the main and side	gy of dosage	technological and	use in the
		morphofunctional	effects of drugs, the	forms obtained	instrumental	manufacture of
		features,	effects of their	under the	schemes for the	drugs that are
		physiological states	combined use and	conditions of	production of	subject to
		and pathological	interaction with	pharmaceutical	finished medicines	quantitative
		processes in the	food, taking into	production:	• draw up a	accounting,
		human body to solve	account	powders,	material balance	registration of
		professional	morphofunctional	collections,	and carry out	the reverse side
		problems	features,	granules,	calculations taking	of the
			physiological	capsules,	into account the	prescription)
			conditions and	microgranules,	consumption rates	• basic
			pathological	microcapsules,	of the entire	information
			processes in the	dragees, tablets,	technological	transformation
			human body	aqueous	process by stages	technologies:
				solutions for	• draw up a	text,
				internal and	technological	spreadsheet
				external use,	section of the	editors;
				solutions in	industrial	• technique of
				viscous and	regulation for the	working on the
				volatile solvents,	production of	Internet for
				syrups, aromatic	finished dosage	professional
				waters, tinctures,	forms	activities;
				extracts,	• carry out step-	• skills in
				ophthalmic	by-step control at	compiling
1				dosage forms,	the stages of	technological
				solutions for	manufacturing the	sections of

				injections and	finished product	industrial
				infusions,	and during the	regulations for
				suspensions for	holiday;	the production
				enteral and	• to standardize	of finished
				parenteral use,	DF in terms of	dosage forms,
				emulsions for	technological and	including
				enteral and	biopharmaceutical	technological
				parenteral use,	indicators in	and
				ointments,	accordance with the	instrumental
				suppositories,	current normative	schemes for the
				patches, pencils,	documents	production of
				films, aerosols;	• make fragments	finished dosage
				• technolo	of ND on LF	forms;
				gy for the	• work	• develop an
				manufacture of	independently with	accounting
				medicines in a	educational and	policy, keep
				pharmacy:	reference literature;	records of
				powders,	• ensure	inventory
				aqueous	compliance with	items: cash and
				solutions for	the rules of	settlements,
				internal and	industrial hygiene,	prepare reports
				external use,	environmental	for internal and
				solutions in	protection, labor,	external users
				viscous and	safety	of accounting
				volatile solvents,		information
				ophthalmic		
				dosage forms,		
				solutions for		
				injections and		
				infusions,		
				suspensions for		
				entheal and		
				parenteral use,		
				emulsions,		
				aqueous extracts		
				from medicinal		
				plant raw		
				materials,		
				complex		
				combined		
				preparations with		
				a liquid		
				dispersion		
				medium,		
				ointments,		
			ana 1	suppositories;		
3.	GPC -6.	Able to understand	GPC-6.2. Carries	• technolo	• draw up basic	• in the case of
		the principles of	out an effective	gy of dosage	technological and	use in the
		operation of modern	search for	forms obtained	instrumental	manufacture of
		information	information	under the	schemes for the	drugs that are
		technologies and use	necessary to solve	conditions of	production of	subject to
		them to solve	the problems of	pharmaceutical	finished medicines	quantitative
		problems of	professional activity,	production:	• draw up a	accounting,
		professional activity	using legal reference	powders,	material balance	registration of
			systems and	collections,	and carry out	the reverse side
			professional	granules,	calculations taking	of the
			pharmaceutical	capsules,	into account the	prescription)
1			databases	microgranules,	consumption rates	• basic
			CDC 6.2 Hass	microcapsules,	of the entire	information
			GPC-6.3. Uses	dragees, tablets,	technological	transformation
			specialized software	aqueous	process by stages	technologies:
1			for mathematical	solutions for	• draw up a	text,
			processing of observational and	internal and	technological	spreadsheet
				external use,	section of the	editors;
			experimental data in	solutions in	industrial	• technique of

			solving problems of	viscous and	regulation for the	working on the
			professional activity	volatile solvents,	production of	Internet for
				syrups, aromatic	finished dosage	professional
				waters, tinctures,	forms	activities;
				extracts,	• carry out step-	• skills in
				ophthalmic	by-step control at	compiling
				dosage forms,	the stages of	technological
				solutions for	manufacturing the	sections of
				injections and	finished product	industrial
				infusions,	and during the	regulations for
				suspensions for	holiday;	the production
				enteral and	• to standardize	of finished
				parenteral use,	DF in terms of	dosage forms,
				emulsions for	technological and	including
				enteral and	biopharmaceutical	technological
				parenteral use,	indicators in	and
				ointments,	accordance with the	instrumental
				suppositories,	current normative	schemes for the
				patches, pencils,	documents	production of
				films, aerosols;	• make fragments	finished dosage
				• technolo	of ND on LF	forms;
				gy for the	• work	• develop an
				manufacture of	independently with	accounting
				medicines in a	educational and	policy, keep
				pharmacy:	reference literature;	records of
				powders,	• ensure	inventory
				aqueous	compliance with	items: cash and
				solutions for	the rules of	settlements,
				internal and	industrial hygiene,	prepare reports
				external use,	environmental	for internal and
				solutions in	protection, labor,	external users
				viscous and	safety	of accounting
				volatile solvents,		information
				ophthalmic		
				dosage forms, solutions for		
				injections and		
				infusions,		
				suspensions for		
				entheal and		
				parenteral use,		
				emulsions,		
				aqueous extracts		
				from medicinal		
				plant raw		
				materials,		
				complex		
				combined		
				preparations with		
				a liquid		
				dispersion		
				medium,		
				ointments,		
				suppositories;		
4.	PC-1.	Capable of	PC-1.1. Carries out	• technolo	• draw up basic	• in the case of
		manufacturing	activities to prepare	gy of dosage	technological and	use in the
		medicines for	the workplace,	forms obtained	instrumental	manufacture of
		medical use	technological	under the	schemes for the	drugs that are
			equipment,	conditions of	production of	subject to
			medicinal and	pharmaceutical	finished medicines	quantitative
			excipients for the	production:	• draw up a	accounting,
			manufacture of	powders,	material balance	registration of
			medicinal products	collections,	and carry out	the reverse side
			in accordance with	granules,	calculations taking	of the
			prescriptions and	capsules,	into account the	prescription)

	(or) requirements	microgranules,	consu
	PC-1.2. Produces	microcapsules, dragees, tablets,	techno
	medicinal products	aqueous	proces
	in accordance with	solutions for	• drav
	established rules and	internal and	techno
	taking into account	external use,	section
	the compatibility of	solutions in	indust
	medicinal and	viscous and	regula
	excipients,	volatile solvents,	produc
	controlling quality at	syrups, aromatic	finishe
	all stages of the	waters, tinctures,	forms
	technological	extracts,	• carı
	process	ophthalmic	by-ste
		dosage forms,	the
	PC-1.3. Packs,	solutions for	manuf
	labels and (or) issues	injections and	finishe
	manufactured	infusions,	and
	medicinal products	suspensions for	holida
	for dispensing	enteral and	• to
	DC 1 / Pagistars	parenteral use, emulsions for	DF i
	PC-1.4. Registers data on the	enteral and	techno
	manufacture of	parenteral use,	biopha
	medicinal products	ointments,	indica
	in the prescribed	suppositories,	accord
	manner, including	patches, pencils,	docum
	keeping a subject-	films, aerosols;	• mal
	quantitative record	• technolo	of ND
	of groups of	gy for the	• wor
	medicinal products	manufacture of	indepe
	and other substances	medicines in a	educat
	subject to such	pharmacy:	referei
	accounting	powders,	• ensi
		aqueous	compl
		solutions for	the
		internal and	indust
		external use,	enviro
		solutions in	protec
		viscous and	safety

volatile solvents, ophthalmic dosage forms, solutions for injections and infusions, suspensions for entheal and parenteral use, emulsions, aqueous extracts from medicinal plant raw materials, complex combined preparations with a liquid dispersion medium, ointments, suppositories;

- consumption rates of the entire technological process by stages
- draw up a technological section of the industrial regulation for the production of finished dosage forms
- carry out stepby-step control at the stages of manufacturing the finished product and during the holiday;
- to standardize DF in terms of technological and biopharmaceutical indicators in accordance with the current normative documents
- make fragments of ND on LF
- work independently with educational and reference literature;
- ensure compliance with the rules of industrial hygiene, environmental protection, labor, safety

- basic information transformation technologies: text, spreadsheet editors;
- technique of working on the Internet for professional activities;
- skills in compiling technological sections of industrial regulations for the production of finished dosage forms, including technological and instrumental schemes for the production of finished dosage forms;
- develop an accounting policy, keep records of inventory items: cash and settlements, prepare reports for internal and external users of accounting information

4. Volume of academic discipline and types of educational work

The total complexity of the discipline is 3 credits. units (108 academic hours)

	Labor in	Labor		
Type of study work	volume in credit units (CU)	volume in academic hours (AH)	intensity by semesters (ACh)	
			7	
Classroom activities (total):	not provided			
Lectures (L)	not provided			
Practical exercises (PZ)	not provided			
Seminars (C)	not provided			
Consultation with practice leader (C)	not provided			
Independent work (SR)	3	108	108	
Intermediate certification (PA): credit				
TOTAL LABOR CAPACITY	3	108	108	

5. Sections of the discipline and formed competencies

No. p / p	Competency Code	Name of the discipline section
1	GPC -1.	pharmaceutical technology practice
2	GPC -2	pharmaceutical technology practice
3	GPC -6.	pharmaceutical technology practice
4	PC-1.	pharmaceutical technology practice